

# IDETC-CIE 2023

## International Design Engineering Technical Conferences & Computers and Information in Engineering Conference

In-Person Event

Boston Park Plaza, Boston MA | August 20–23, 2023

### 43<sup>rd</sup> Computers and Information Engineering Conference (CIE)

#### CALL FOR PAPERS

<https://event.asme.org/IDETC-CIE>

The CIE Division is excited to put out a call for papers for the 43<sup>rd</sup> CIE Conference, to be held in August 20-23, 2023, Boston Park Plaza, Boston, MA, USA. All five CIE tracks are soliciting papers in all aspects of computer applications on experimental, numerical, or analytical studies, with emphasis on the highlighted topic areas.

#### TRACKS SYMPOSIUM

- Advanced Modeling and Simulation (AMS)
- Computer-Aided Product and Process Development (CAPPD)
- Virtual Environments and Systems (VES)
- Systems Engineering Information Knowledge Management (SEIKM)
- Artificial Intelligence+Machine Learning (AI+ML) Approaches for Engineering

#### TRACK SYMPOSIUM TOPICS

- CIE-01 AMS: Advanced Modeling and Simulation (AMS General)
- CIE-02 AMS: Inverse Problems in Science and Engineering
- CIE-03 AMS: Computational Multiphysics Applications
- CIE-04 AMS: Uncertainty Quantification in Simulation and Model Verification & Validation
- CIE-05 AMS: Simulation in Advanced Manufacturing
- CIE-06 AMS: Material Characterization Methods and Applications
- CIE-07 CAPPD: Computer-Aided Product and Process Development (CAPPD General)
- CIE-08 CAPPD: Human-in-the-Loop Product Design and Automation
- CIE-09 CAPPD: Digital Human Modeling for Design and Manufacturing
- CIE-10 CAPPD: Product & Process Design Automation for Industry 4.0
- CIE-11 CAPPD: Data-driven Product Design and Fabrication
- CIE-12 SEIKM: Systems Engineering Information Knowledge Management (SEIKM General)
- CIE-13 SEIKM: Design Informatics
- CIE-14 SEIKM: Systems Engineering and Complex Systems
- CIE-15 SEIKM: Knowledge Capture, Reuse, and Management
- CIE-16 SEIKM: Smart Manufacturing Informatics
- CIE-17 SEIKM: Advanced Manufacturing for Bioeconomy and Circular Economy
- CIE-18 VES: Designing User Experiences for Virtual Environments
- CIE-19 VES: Virtual Systems for Engineering Applications
- CIE-20 VES: VES Show-and-Tell
- CIE-27 AI + ML Approaches for Engineering (General)

#### CIE JOINT TOPICS

- CIE-21 AMS-CAPPD: Digital Twin: Advanced Human Modeling and Simulation in Engineering
- CIE-22 AMS-SEIKM: Digital Twin Modelling and Analytics for Advanced Manufacturing
- CIE-23 AMS-SEIKM: Physics-Informed Machine Learning for Design and Advanced Manufacturing
- CIE-24 SEIKM-AMS: Artificial Intelligence and Machine Learning in Design and Manufacturing
- CIE-25 AMS-CAPPD-SEIKM: Design, Simulation and Optimization for Additive Manufacturing
- CIE-26 Graduate Student Poster Symposium

#### CIE SPECIAL SESSION

- VES: JCISE Spotlight Talks on Extended Reality in Design and Manufacturing

Selected papers will be published in ASME *Journal of Computing and Information Science in Engineering* (JCISE). Five Best Papers will be awarded, including CIE Conference Best Paper and AMS, CAPPD, SEIKM and VES Best Paper.

#### IDETC-CIE WORKSHOPS/TUTORIALS

Please consider the opportunity to submit a proposal for organizing a workshop or tutorial in ASME IDETC-CIE 2023. The submission form can be found at: <https://event.asme.org/IDETC-CIE/Program/Workshop-Tutorial-Proposals>

#### CONFERENCE ORGANIZERS

**CONFERENCE CHAIR:** Caterina Rizzi  
University of Bergamo  
Bergamo, Italy, [caterina.rizzi@unibg.it](mailto:caterina.rizzi@unibg.it)

**PROGRAM CHAIR:** Robert Wendrich  
Rawshaping Technology RBSO  
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#### IMPORTANT DATES

- **SUBMISSION OF ABSTRACT FULL-LENGTH PAPER FOR REVIEW**  
March 13, 2023
- **PRESENTATION ONLY AND POSTER SUBMISSION**  
April 10, 2023
- **PAPER REVIEW COMPLETE**  
April 17, 2023
- **DRAFT PAPER AND PRESENTATION ONLY/POSTER EXTENDED ABSTRACT DECISION NOTIFICATION**  
April 24, 2023
- **SUBMISSION OF COPYRIGHT FORM**  
May 12, 2023
- **FINAL PAPER SUBMISSION**  
May 15, 2023